Recommendations on the City of Rockville's Adequate Public Facilities Ordinance and Standards

A Report by the Adequate Public Facilities Ordinance Review Committee

November 2011

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Table of Contents

Introduction

The population of the City of Rockville, Maryland grew by 29 percent between 2000 and 2010.[1] This rate of growth was exceptional; the City has not seen such growth since the post-WWII boom years of the 1950s-60s.[2] Regional planners estimate that Rockville's population growth will continue, albeit at a slower pace. The City's relatively strong economic conditions, anticipated job creation, high quality schools, and well regarded quality of life are anticipated to continue to draw the demand of new residents for the foreseeable future. Rockville's population is predicted to reach 83,929 by the year 2040.[3]

While population growth can be a boon to a city through increased tax revenue, growth also can create problems. Without proper planning for population growth, the infrastructure and services of a municipality can become overburdened and the quality of life of the citizens will suffer. Roads can become overly congested with traffic, school enrollment can exceed program capacity, and water supplies can be strained during dry summer months.

For these reasons, city planners across the nation turn to tools to help them properly plan for changes in population size. One tool that is widely used is an Adequate Public Facilities Ordinance (APFO). According to the Maryland Department of Planning: "An APFO ties development approvals under zoning and subdivision ordinances to specifically defined public facility standards. They are designed to slow the pace of development or in extreme cases to delay development approvals in an area until adequate service levels are in place or reasonably assured."

Since the City of Rockville enacted an APFO in 2005, a number of issues have arisen with the ordinance and the Adequate Public Facilities Standards (APFS or Standards) that implement the law. In response to these problems, the Rockville Planning Commission ordered a review of the APFO and APFS by an ad hoc committee of Rockville citizens and commercial stakeholders. This report serves to communicate the findings and recommendations of the APFO Review Committee.

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[1] U.S. Census results for the City of Rockville.
[2] Rockville Strategic Scan 2010. See http://www.rockvillemd.gov/government/strategicscan/StrategicScan2010.pdf.
[3] Rockville Strategic Scan 2010.

Background on the APFO Review Committee

In December 2010, the City of Rockville's Planning Commission created the APFO Review Committee to "review and study the APFO and APFS, identify discrepancies and make recommendations to amend the ordinance and standards."[4]

The membership of the Committee is comprised of Rockville residents and representatives of the City's commercial stakeholders. Nine committee members were selected by the Planning Commission from a pool of volunteers who applied to serve on the Committee.

The Committee held its first meeting on January 27, 2011. In the ensuing eight months, the Committee met nearly 30 times. These meetings were all open to the public. Meeting minutes and supporting materials were posted to a web page on the City's website,[5] and City staff distributed information about the Committee's activities via a City listserv.

During the course of its work, the Committee solicited information from a variety of sources, including: City staff, a member of the Board of Education, the director of Long Range Planning for Montgomery County Public Schools, principals and PTA members of Rockville schools, the City's Fire Marshal, a representative of the County's Department of Fire and Rescue Services, Montgomery County Planning Department, a Washington Metropolitan Area Transit Authority representative, the deputy staff director to the Montgomery County Council, representatives of neighborhood associations, two appellants in the Beall's Grant II court case, a former mayor, a former city council member, and representatives of Rockville's commercial stakeholders (see Appendix A for a full list of experts).

These sources provided a diversity of views, opinions, facts, and data on topics relevant to the APFO and APFS. In addition to oral testimony, the Committee requested and was provided with written and electronic data and information, much of which is posted on the Committee's website. Several Committee members conducted their own analysis of school enrollment and capacity data.

Additionally, the Committee held a public forum on June 2, 2011 to provide Rockville residents and commercial stakeholders an opportunity to share their views on the APFO. Written comments from the public were also accepted for a two-month period in May-June 2011. The Committee, with the assistance of City staff, advertised these opportunities on the City's website and in Rockville Reports, as well as sent a press release to local media outlets. About a dozen people submitted input in writing or at the public forum.

[4] See Planning Commission Resolution 3-10 for the full charge to the Committee.
[5] http://www.rockvillemd.gov/government/commissions/pc/APFOCommittee.

Overview of the APFO and APFS

The APFO and the Standards that implement the law were adopted by Rockville Mayor and Council in November 2005.[6] As stated in the APFO, the Ordinance and Standards establish "the method used by the City to ensure that the necessary public facilities will be available to serve proposed new development or redevelopment."

The ordinance requires proposed development projects in the City to be examined for their impacts to roads and public transportation facilities, sewer and water service, schools, and fire and emergency services. If a project would cause any of these facilities to decline below a minimum threshold of service, the City must deny the project, unless the applicant can mitigate any adverse impacts on public facilities that are deemed inadequate under the Standards.

Montgomery County has its own APFO and APFS, which have been in place since 1973. The County ordinance is superficially similar to Rockville's, in that it regulates the timing of new development in order to maintain certain levels of service for schools, roads, fire/emergency services, water, and sewer. Major differences, however, exist between the APFOs of the two jurisdictions. The Committee has included relevant information within this document in order to provide the proper context for our findings and recommendations.

[6] The APFO is Section 25.20 of the City Code and can be viewed online at http://www.rockvillemd.gov/government/citycode.htm. The APFS, as adopted on June 6, 2011, can be viewed at http://www.rockvillemd.gov/government/cpds/APFO-adopted06-11.pdf.

School Facilities Standard

During the course of its work, the Committee dedicated more time to discussing and analyzing the school standard than any other aspect of the APFO. These extensive discussions were due to the complexity and importance of the standard. Given the standard's significant potential consequences for residents and commercial stakeholders alike, the Committee paid great attention to—and vigorously discussed—the topics of public school capacity, impact of overcrowding, projection of future student enrollment, and estimated student generation by housing type. In addition to addressing these four main topics, the Committee also examined key differences between the City's APFO school standards and those of Montgomery County, as well as the pipeline of approved projects in Rockville and alternative approaches to funding additional school capacity.

The six recommendations presented at the end of this section are a result of these discussions. All of these recommendations were voted on by the nine Committee members and passed with either a majority or unanimous vote.[7]

1. Capacity of Public Schools serving the City of Rockville and Impact of Overcrowding

Students in Rockville attend schools that are located both within and outside the city limits. Of the schools that are located within Rockville, only two schools service 100 percent Rockville residents: Beall Elementary and Meadow Hall Elementary. The student bodies of the remaining 18 elementary, middle, and high schools are comprised of 3 to 90 percent Rockville residents.

School capacity can be assessed in two ways: core capacity and program capacity. For the purposes of the APFO, program capacity is used.

Core capacity is the number of students a school can physically accommodate for all activities including those that occur outside of the regular classroom, such as lunch, recess, bathrooms, assemblies, as well as art, music, physical education, and computer classes. When core capacity is exceeded, schools typically adjust student usage of core facilities. The most prevalent example is extended lunch periods. At College Gardens Elementary School there are six lunch periods, with the fourth grade class eating lunch from 1:30 to 2:00 PM.

Core capacity is generally a standard building specification and applied somewhat consistently at each school level (e.g. elementary, 640 or 740 students; middle, 1,000 or 1,200 students; and high school, 2,000 or 2,400 students). It is also the fundamental element around which the size and cost of a building are determined. The physical layout of a school is also based around core uses. Other functions, such as classrooms, offices, etc., are located around core facilities toward the outside of the

[7] There were core topics related to the school standard, however, on which the Committee could not agree. Rather than exclude these different views, the Committee agreed that individual members would be allowed to include minority reports as an appendix to the main report.

school. Therefore, core capacity is difficult to modify through renovation due to the potential high cost.

Program capacity is defined by the state of Maryland as "the maximum number of students that can reasonably be accommodated in a facility without significantly hampering delivery of the given educational program. School [program] capacity is the product of the number of teaching stations at a school and the average class size for each program."

Program capacity is determined by Montgomery County Public Schools (MCPS) and is changed in accordance with various economic and social issues. The most typical change is adjustment of the number of students in each classroom in each grade level. Schools that have a large number of students receiving Free and Reduced Price Meals (FARMS) and/or students participating in the English for Speakers of Other Languages (ESOL) program are designated by MCPS as part of the Class Size Reduction (CSR) initiative. Class size in these designated schools is reduced, with the size of the reduction depending on grade level. Such status is re-evaluated from time to time meaning that a change in a school's CSR status can affect whether or not a school is considered overcapacity or not. Five elementary schools in Rockville have CSR status as of the 2011-2012 school year. Beall ES had its CSR status removed this year.

When a school exceeds its program capacity, the additional students are typically accommodated by installing temporary classrooms (also known as portables) next to the main school building. Portables are considered a temporary solution, and are not included in program capacity calculations. However, they can persist at extremely overcrowded schools while the County looks for a permanent solution (either construction of a new school or renovation of an existing school). Overall, about nine percent of Rockville's elementary school students are taught in portable classrooms for at least part of their school day.

MCPS typically uses program capacity when it reports on school capacity. If a school has filled 100 percent of its seats in regular (i.e. not portable) classrooms, the school's enrollment would be 100 percent of program capacity. Any additional enrollment, such as that accommodated by portables, would cause the school's capacity to exceed 100 percent program capacity.[8] A school that exceeds its defined program capacity may or may not exceed its core capacity, depending on its CSR status. (See Appendix C for a comparison of school core capacity versus actual and projected enrollment.)

In the 2010–2011 school year, eleven of the twenty schools that service Rockville exceed their program capacity.[9] Capacities ranged from 76 percent (Tilden Middle School) to 137 percent (Beall Elementary School). The twenty schools that service Rockville are grouped into five clusters based on the high school that serves students within the cluster. Of these five clusters, only one—Walter Johnson—did not have any overcapacity schools. The most overcrowded cluster was the Richard Montgomery

[8] See Appendix B: City of Rockville FY 2012 School Test – in effect from July 1, 2011, through June 30, 2012.
[9] See Appendix B: City of Rockville FY 2012 School Test – in effect from July 1, 2011, through June 30, 2012.

cluster, whose schools stood at an average 115 percent of program capacity in 2010–2011.[10] The Richard Montgomery cluster also has the three most overcrowded schools that serve Rockville residents, which averaged 130 percent of program capacity. This cluster services more than half of Rockville's student population and covers about half of the City's land area. As such, the Committee frequently focused on this cluster when conducting its analysis. Nevertheless, conclusions drawn about the Richard Montgomery cluster cannot be assumed to affect all of Rockville's residents, nor all of Rockville's geographic area.

In addition to data provided by the City and County, the Committee received testimony from several educators and parents regarding how portables and overburdened core facilities impact students' learning experience. In general, the educators agreed that portables have not been shown to negatively impact the quality of education students receive in core-curriculum areas (reading, math, etc.), although there have been concerns raised by parents and school staff about student safety and health, as well as diminished exposure to non-core-curriculum areas of study such as music, art, computers, etc. It was also noted that the addition of extra students accommodated by the portables can overburden core facilities such as the cafeteria, library, gymnasium, computer lab, and music and art classrooms.

2. Rockville's Role in Adequacy of Schools

Rockville's APFO is designed to ensure that the necessary public facilities, including schools, will be available to meet the needs of new development and redevelopment in the City prior to project approval. The ordinance considers projected student enrollment at each elementary, middle, and high school that would serve a proposed development project. When a project application is filed, the City estimates how many students the project would contribute to each impacted school using student generation rates determined by the Montgomery County Planning Department. If the projected student population of a school exceeds 110 percent of the program capacity (including approved but unbuilt projects) in either of the two "test" years following a residential development application, the ordinance requires that project be denied. The two exceptions are developments that are granted a waiver from the APFS school test because they will not generate school age children (e.g. a nursing home) or that are exempt from the AFPO because they were grandfathered into the law. Rockville has no direct role in managing the adequacy of the public schools serving its residents; it is the full and sole responsibility of Montgomery County. The County, however, taxes City residents to support the schools.

3. MCPS School Enrollment Projections

MCPS estimates future student enrollment for each school by considering a variety of factors, including the local birth rate, aging of children through the school system, movement of students into and out of the school system, and new construction of housing.

[10] City of Rockville FY 2012 School Test – in effect from July 1, 2011, through June 30, 2012.

Several Committee members and invited guests who testified at the Committee's meetings questioned the accuracy of MCPS' projections of student enrollment. To evaluate the historical accuracy of the enrollment projections for Rockville's schools, the Committee received and analyzed data and testimony by Montgomery County staff responsible for projecting future enrollment at MCPS schools. Specifically, the Committee considered MCPS' past school enrollment projections for the 2009-2010 and 2010-2011 school years and compared those predictions to actual school enrollments in 2009-2010 and 2010-2011. Enrollment projections made in May or June of 2006, 2007, 2008, 2009, and 2010 were provided to the Committee for the two school years.

For the Richard Montgomery cluster, the Committee found that MCPS consistently underestimated student enrollment rates (see Appendix D). Enrollment at the six schools in the cluster was underestimated by 7 and 8 percent on average, although accuracy was worse the farther out the prediction was made. Accuracy of enrollment predictions differed between the two selected school years. College Gardens Elementary School had the worst accuracy for both years. Notably, the 2006 projections underestimated the cluster's 2010-2011 student population by approximately 600 students.

In addition to testing the historical accuracy of enrollment projections in the Richard Montgomery cluster, the Committee discussed the diverse demographic factors, the degree of difficulty in accounting for those factors, various methodologies involved in projecting enrollment, and the consequences of inaccurate projections. With respect to the latter, it was noted that gross underestimation can lead to overcrowded schools, while gross overestimation can lead to unnecessary delay or denial of proposed development projects. Since the projections are a County function, the Committee used the input to generate recommendations for the City that could potentially influence and motivate MCPS to pursue improvement with respect to the accuracy of their school enrollment projections (see recommendations 1, 2, and 5).

4. Past Growth in Student Enrollment

Past growth in student enrollment has been caused by a number of factors such as increasing birth rate, student migration from private schools to public schools, immigration into Montgomery County from other parts of the U.S. and from abroad, and turnover of existing housing from older persons to families with young or school-age children.[11]

The Committee heard from several experts, including MCPS' director of long range planning, that the turnover of existing housing stock has had – and is expected to continue to have – a significant impact on student enrollment in the local schools. In recent years, about 80 percent of home sales in Montgomery County have been resales of existing housing.[12] Although activity in the real estate market is subject to a great deal of variation year to year, resales have comprised between 69.5 percent and 86

[11] See Appendix E: Memo from MCPS Division of Long-Range Planning, dated March 31, 2011.
[12] Memo from MCPS Division of Long-Range Planning, dated March 31, 2011.

percent of annual home sales for 1990 to 2009. Future trends in home sales, however, have yet to emerge in the aftermath of the recent recession.

New construction has also played a role in growth of student enrollment at public schools. Approximately one-fifth of the City's housing has been built since 2000.[13] The housing units added in the early years of the 2000's contributed significantly to the student populations in the King Farm and Fallsgrove communities, which are comprised of multiple housing types and cater to families. These newer developments helped to fuel the City's population increase of 14,000 people in the last ten years.[14]

The Committee heard from multiple witnesses who expect future residential development in Rockville to play out in a very different fashion. Most new residential construction will likely be multi-family apartments or mixed use buildings. This change in development pattern is a result of the fact that there is very little space left in the City under current zoning for the construction of new single-family homes, as well as the high land values in Rockville.

5. Estimated Student Generation Rates by Housing Type

One of the key elements utilized by MCPS in projecting future student enrollment is an estimation of the average number of students generated per household based on housing type (e.g. single-family, townhouse, multi-family garden apartment, mid-/high-rise). These estimates are calculated and provided to MCPS by the Maryland-National Capitol Park and Planning Commission.[15] City staff also use these estimates to determine how many students will be generated by a proposed residential development project. The estimated number of students generated is compared to the projected program capacity of each elementary, middle, and high school that will serve the new development. In accordance with the City's APFS, a project fails when a new development would cause a school to exceed 110 percent of its projected program capacity in either of the two years immediately following the current school year.

The Committee spent considerable time discussing the accuracy of the student generation rates by housing type. Similar to enrollment projections, the accuracy of these rates carries important consequences. Inaccurate rates can lead to school overcrowding; they can also distort the APFO review process for new residential projects. In particular, accurate rates for new multi-family residential are especially important given the likelihood that most future residential construction will be multi-family apartments or mixed-use buildings.

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[13] Rockville Strategic Scan 2010. See http://www.rockvillemd.gov/government/strategicscan/StrategicScan2010.pdf.

[14] Rockville Strategic Scan 2010.

[15] A summary table of Montgomery County Student Generation Rates for New Housing by Type is available at http://www.rockvillemd.gov/government/commissions/pc/apfo/2011/StudentGeneration2008.PDF. Average estimated student generation rates in Montgomery County range from 0.442 students per single-family home in the northern part of the County to 0.236 in the eastern part of the County. Rockville is located in the southwest area with an average rate of 0.341 students per single-family home. There is clearly significant variation, even on a geographical basis.

The County's estimates of average student generation rates by housing type are derived by a survey of existing households across Montgomery County. The most recent survey was conducted in 2008. Due to an inadequate sample size for multi-family buildings, the County was forced to use student yield rates collected in 2005. This was particularly troubling to the Committee, in that six year old data was used by MCPS to project student yields for six years into the future – a 12 year time span.

Other aspects of the estimation method were disconcerting as well. Data from existing homes of all ages is used to calculate student generation for both existing residences and for new construction. Discussion focused on the notion that the demographics of households who purchase new homes could be different from the families who live in existing housing. Also, the County's student generation rates do not acknowledge more localized impacts, such as the number of bedrooms in each housing unit, location and desirability of the local schools, local demography, and ethnic diversity.

The Committee received testimony and data from City and County staff, as well as anecdotal data from residents, developers, and school officials. Several Committee members also conducted their own analyses and shared their findings and opinions with the group. In response to testimony that actual generation rates for certain new housing developments were much higher than the County's estimates, the Committee requested for verification purposes actual student yields for 16 specific locations in or adjacent to Rockville (see Appendix F). The locations were chosen by Committee members and represent a cross-section of housing types and neighborhoods. The exact construction year for each location was not obtained; however, some of the developments were several decades old, while others were completed in the last few years.

The data set shows a noticeable degree of variation within each housing type. The yield-rate from similar multi-family complexes may differ significantly depending on the characteristics of those properties. The availability of nearby recreational facilities, proximity and reputation of schools, and perceived desirability of a neighborhood are among factors that will influence parents and potential parents in their choice of location in which to live. One example to illustrate this degree of variation: at the Huntington apartments in King Farm, the student yield was twice as high for apartments located south of Redland Boulevard than those located to the north. Students south of Redland Boulevard go to College Gardens Elementary in the Richard Montgomery cluster; students north of Redland Boulevard go to Rosemont Elementary in the Gaithersburg cluster. Testimony by King Farm residents indicated that some families north of Redland Boulevard decided to sell their houses and move to another house nearby, south of Redland Boulevard, just to be able to send their children to College Gardens Elementary School (or Richard Montgomery High School instead of Gaithersburg High School).

These 16 locations were chosen by committee members and are representative of various housing types throughout the city. A statistical sampling analysis was not conducted, however, the information did sufficiently convince the Committee that average estimation rates vary considerably when applied locally.

The Committee also discussed Rockville's demographic patterns at several meetings. The Committee members agreed that changing demographics add an additional layer of complexity that would provide valuable information to improve the accuracy of estimated generation rates and their resultant projections.

The fact that several years have passed since the County has updated its rates, and the lack of actual data to address whether or not new housing generates similar numbers of students as existing housing, motivated the Committee to adopt recommendations 1, 2, and 3, which appear below.

The Committee also analyzed and debated Rockville's demographic patterns. While this analysis proved too complex and—in some cases too subjective—for inclusion into this report, Committee members agreed that changing demographics add an additional layer of complexity that, if not properly addressed, will undermine the accuracy of estimated generation rates and other projections. This demographic analysis provided further motivation for the adopted recommendations related to estimated student generation rates by housing type.

6. Key Differences Between the City's and Montgomery County's APFOs

The Committee also discussed the differences between Montgomery County's APFO and Rockville's APFO with respect to the schools standards. The main differences are:

- The County's school test threshold is 120 percent of program capacity. (Rockville's threshold is 110 percent);
- The County APFO determines program capacity by averaging capacity for all schools of a given level within an entire high school cluster and allows residential development so long as the average threshold does not exceed 120 percent of program capacity. (Rockville tests school capacity on a school-by-school basis; each school must be under the City's 110 percent threshold);
- The County APFO tests projected enrollment for a one year period. (Rockville considers enrollment projections for a two year period);
- The County APFO's test year is five years into the future. (Rockville's test years are one and two years out); and
- Under the County APFO, developers are supposed to pay a school facilities payment for each student estimated to be generated from new residential construction when the affected school(s) is more than 105 percent but less than 120 percent of program capacity. (Rockville does not have a comparable fee.)

It is important to note that the Montgomery County APFO allows new residential development projects to be approved until the five year forecasted school enrollment reaches 120 percent of the average school cluster program capacity. The rationale behind Rockville's stricter standard of 110 percent is to prevent further overcrowding of already overcapacity schools. Even though no new residential development would be permitted by the City in areas where schools are more than 110 percent over program capacity, overcrowding at such schools could be exacerbated by new development that

occurs in Montgomery County just outside the City's boundaries. While the Committee did not make a specific recommendation on this issue, it is important to be aware of it as a factor that affects planning and is beyond the City's control.

The differences in the City's and County's APFO helped inform the Committee's analysis of Rockville's APFO and served as a source of possible recommendations for some Committee members. Specifically, the Committee debated the merits of increasing Rockville's 110 percent threshold to 120 percent in order to match that of the County's. This topic of discussion led to three alternative proposals: some members believed that the current Rockville standard of 110 percent over capacity is reasonable and should be retained; some members believed that increasing the threshold to the County level of 120 percent would illustrate a good faith effort by Rockville to work cooperatively with the County to solve overcrowding in Rockville schools; and some proposed to allow a waiver of the threshold (up to 120 percent) under certain circumstances on a case-by-case basis. Ultimately, none of these proposals received the support of a majority of the Committee.

The sponsors and supporters of each of these proposals, however, recognized the need for more accurate projection of future school enrollment and student generation rates by housing type and enabled the adoption of recommendations 1, 2, and 3.

Another related topic of discussion was the duration of the test window for program capacity. The City uses a two-year test, versus the County's one-year test. The Committee heard from original authors of the APFO that a two-year test was selected in order to ensure that the results of the school test were real trends and not a one-year aberration. Conversely, some Committee members noted that a two-year test poses a higher hurdle for new developments to pass. Ultimately, a majority of the Committee endorsed retaining the existing two-year test.

7. Rockville's Pipeline of Approved Projects

There are six residential development projects within Rockville that are not subject to the APFO. Five of these projects were approved by the City prior to enactment of the APFO in 2005, and are thus not subject to the law. One additional project was in the review process with the City in 2005; that project was "grandfathered" into the law, so that it too would be exempt from the APFO. Known as "grandfathered" projects, the APFO grants all of these projects a 25-year validity period for implementation with the option of an additional 5-year extension. This is significantly longer than the validity period that new applicants receive.

The grandfathered projects are relevant to the APFO because when applying the school standard, the City must account for all development projects that have been previously approved but not yet built, including the grandfathered projects. Thus, a grandfathered project that is never built could potentially hold reserved school capacity for several decades. These projects, if ever fully built, include in excess of 3,000 potential residential units with a projected student contribution to Rockville schools of almost 500

children. Most of the impact of these projects would be felt in the Richard Montgomery cluster. A complete listing of all grandfathered projects, their respective number of approved residential units, and the number of students they are estimated to generate can be found in Appendix G.

The Committee was told by one of the authors of the APFO that a long validity period was granted to the grandfathered projects because the City did not want to overturn development approvals it made prior to the enactment of the APFO. As a group, the Committee was not able to speak directly to any of the grandfathered project applicants, or their representatives, in order to inquire as to their plans for moving forward.

There was a range of views expressed by various committee members on whether or not anything should or could be done with respect to these grandfathered projects. Committee members agreed that there were both positive and negative tradeoffs in having the City reserve school program capacity for projects that may not be built for several decades. For example, some felt that removing grandfathered projects from the schools test could contribute to further overcrowding. Although several suggestions (e.g. selling or trading of approved reserved student capacities) were put forth, no single view coalesced into a recommendation that received the support of a majority of the Committee.

8. *Funding for School Construction*

The biggest concern, and constraint, for any school project is funding. Vying for competing funds is a pursuit in every jurisdiction, and the limited availability results in contentious disputes.

The Committee reviewed various alternatives to gaining the funding necessary to support school construction projects directly or to provide supplemental foundational funding.

One potential source of new funding is a school facilities payment. In Montgomery County, this fee is supposed to be paid by a developer when their proposed project would contribute students to a school that is overcapacity, but not to the extent that the school cluster is in development moratorium (i.e. between 105 percent and 120 percent of program capacity). The amount of the school facilities payment varies by the projected number of students generated in excess of program capacity, and by the grade level of the anticipated students. The fee is $28,501 per student at the high school level, and is less for the middle and elementary school levels.[16] The school facilities payment can only be used in the affected school cluster. Currently, the school facilities payment has been collected only once by the County.[17] It is important to note that the County does not have the authority to collect this fee for development projects

[16] School facilities payment effective July 1, 2009; see permittingservices.montgomerycountymd.gov/permitting/pdf/DevelopmentImpactTax.pdf.
[17] A payment of $6,244.48 was made in September 2010 in the Whitman cluster according to Montgomery County Department of Finance.

located in the City of Rockville, because the school facilities payment only applies to projects approved under the County's APFO.

9. Conclusions

Because of the region's strong economy and well-regarded schools, Rockville is, and will continue to be, a draw for families. The adult population of the City is growing as is the student population. Of the ten elementary schools that serve Rockville, only Lakewood Elementary and Fallsmead Elementary in the Wootton Cluster show a projected reduction in students in the current five-year projection (Appendix B). Therefore, student generation is expected to continue to rise for the foreseeable future, and it is likely that school overcrowding in Rockville will continue even without new development. The solution to this problem is for Montgomery County Public Schools to build new schools and expand existing schools. While preliminary discussions have taken place, there is no commitment on the part of the County to address any of Rockville's urgent needs.[18]

The most significant issues in the schools serving Rockville are in the Richard Montgomery cluster. At present, there is a need for 472 additional spaces for elementary school students. This growth has been evident for several years, and the solution has been incremental and distributed, being addressed by the introduction of portable classrooms to accommodate the growth in student population without corresponding increases in school core capacity. MCPS' estimated time frame for opening a new school is five years. If a new school is authorized now, the projected requirements will rise to 627 additional spaces in that time span. This number would almost fill the new elementary school. Rockville urgently needs this new elementary school to merely mitigate the current and projected student overload.

[18] In November 2011, after the Committee ended its regular meetings, MCPS recommended the construction of an additional elementary school and an addition to Julius West Middle School in the Richard Montgomery cluster in its FY 2013-2018 Capital Improvement Program. The County will not vote upon the school construction budget until spring 2012.

Table 1. Actual and projected Richard Montgomery cluster elementary school populations. Number of students overcapacity is based on MCPS' program capacity for the school.

Elementary School	Program Capacity	Actual Enrollment 2010-2011	# Students Overcapacity	Projected Enrollment 2015-2016[a]	# Students Overcapacity
Beall	526/641[b]	720	194	835	194
College Gardens	670	792	122	831	161
Ritchie Park	387	517	130	571	184
Twinbrook	538	564	26	626	88
Total			472		627

[a] Projected enrollments calculated by MCPS, and therefore may not include all anticipated student generation from approved, but unbuilt projects.
[b] Beall Elementary School's CSR status was removed for the 2011-2012 school year, resulting in a higher program capacity for the school.

The existing overcrowding at Richard Montgomery elementary schools is a signal of the forthcoming impact on Julius West Middle School. The recently completed feasibility study for Julius West cites the need for and proposes a renovation to the school. Similar to the elementary school project, this renovation would be completed in a minimum of five years. If it were to be implemented next year, a dozen or more portable classrooms would be needed during the construction to accommodate the anticipated 323-362 additional students who will attend the school by the 2015-2016 or 2016-2017 school years. According to MCPS' enrollment predictions, Julius West will be at 132 percent of program capacity, severely burdening the core capability of the school.

Since funding for new schools is determined by the County and MCPS, the City of Rockville does not have the ability to directly solve the problem of school overcrowding. Until the County, in conjunction with MCPS recommendations, appropriates the funds to build or expand schools and completes construction, most of Rockville's students will attend overcrowded schools and much of the City will be in residential development moratorium.

10. Recommendations

1) The City should create a standing commission to advise Mayor and Council on K-12 education within the City and to monitor enrollment in the City's schools. The commission should work to better understand the cause of variations in student enrollment due to poor projections by MCPS, demographic factors, perceived school reputation, and other issues. The commission should monitor actual student enrollment and student generation rates by housing type in order to identify inaccuracies in the enrollment projections. Membership of the commission should be comprised of individuals with expertise in areas such as education, statistics,

demographics, and other applicable fields, and should be determined by Mayoral appointment and subject to approval by a majority vote by Mayor and Council.

Based on the advice of, and in coordination with, the standing commission on education, the City should work with MCPS to alleviate the serious overcrowding in schools that service Rockville residents and to improve the accuracy of annual projections of student enrollment. (Adopted 9-0-0)

2) To promote greater transparency of the process and open government, the City should post and maintain the MCPS projections and actual enrollments, from 2005 forward, for each school and cluster that services Rockville students on the City website. The City should also post and maintain student generation data for development projects approved or under consideration that impact Rockville schools. This data should be provided in its raw form to enable citizens to understand the data relationships and perform their own analysis. (Adopted 9-0-0)

3) The City should strongly encourage the County to more regularly update the student generation rates from all housing types, with particular emphasis on high-rise and mid-rise, multifamily buildings that are expected to be the primary source of new development in the future. This is currently conducted by survey, and should be supplemented by demographic data and/or GIS data of actual student enrollment. (Adopted 8-1-0)

4) The Mayor and Council should meet with the Board of Education about the urgency of the need for a new elementary school and additional classrooms in the Richard Montgomery cluster and the need for additional capacity at the middle school level in this cluster to address impending overcrowding at Julius West, and report regularly on the status to the residents of Rockville. (Adopted 9-0-0)

5) The timeframe for the schools test should be kept as is currently cited in the APFS (1 and 2 years). (Adopted 5-3-1)

6) The City should explore the concept of imposing a school facilities payment on new development projects that would cause any school serving Rockville residents to become overcapacity. This should include a discussion of at what thresholds the payment should be applied. (Adopted 7-0-2)

Transportation Facilities Standard

1. The Comprehensive Transportation Review Methodology

The City of Rockville utilizes the Comprehensive Transportation Review Methodology (CTR), amended by the Mayor and Council on March 21, 2011[19] to ensure that adequate transportation facilities exist before and after a new development project in the City. The CTR lists the transportation requirements for all new development applications. A development application's compliance with the CTR requirements constitutes compliance with the City's APFS for transportation facilities.

The CTR requires that all development applications submit a Transportation Report (TR), which can consist of ten separate components or sections.[20] Taken together, the components are designed to analyze the current condition of the local transportation network, including auto and non-auto modes of transportation, and the expected impact that the proposed new development will have on that network. If the expected impact exceeds certain thresholds established by the CTR, then the proposed development must mitigate its impact to the extent required by the CTR in order to be approved by the City.

Developments that generate 30 or more total new peak hour site trips[21] are considered to have a measurable traffic impact, and therefore are required to provide a full TR that addresses all ten components. Developments that generate less than 30 total new peak hour site trips are considered to have minimal impact on the overall transportation system and are allowed to submit an abbreviated version of the TR that covers the Introduction, Proposed On-Site Transportation, and Attachments sections. These smaller developments are not required to mitigate any of their trips in order to fulfill the APFO. In determining a proposed project's total new peak hour trips, credit for existing trips generated by current occupants of the site is provided based on the most recent use of the site.

The CTR represents a multimodal approach in analyzing the adequacy of transportation facilities that serve the City. In addition to requiring analysis of a new development's anticipated automobile traffic impact, the CTR requires an assessment of existing alternate modes of transportation located in and around the proposed development, such as transit (i.e. proximity and access to Metrorail/bus routes), pedestrian (i.e. accessibility and condition of sidewalks), and bicycle (i.e. availability of bike paths and racks). However, the ability of a new development to move forward in the City is largely dependent on passage of the "Intersection Capacity Analysis" component of the CTR.

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[19] The revised CTR is available at http://www.rockvillemd.gov/transportation/pdf/CTR03-21-11.pdf.

[20] The ten components of a full TR, discussed under Section C of the CTR, are as follows: (1) Introduction, (2) Multimodal Analysis, (3) Existing Conditions, (4) Background Conditions, (5) Trip Generation, (6) Intersection Capacity Analysis, (7) Other Studies, (8) Proposed On-Site Transportation, (9) Mitigation Requirements, and (10) Attachments.

[21] The latest editions of the Maryland-National Capital Park and Planning Commission Local Area Transportation Review Guidelines and the Institute of Transportation Engineers trip generation tables are used as the primary sources for estimating trips for specific types of development.

A. Intersection Capacity Analysis/Mitigation

The Intersection Capacity Analysis begins with a determination of the number of intersections anticipated to be impacted by a proposed development. The number of intersections can range from 4 to 16, depending on the number of trips that the development is expected to generate. Each individual intersection's "congestion capacity" is measured using a method called Critical Lane Volume (CLV). An intersection's CLV is defined by the number of vehicles that can move through an intersection's conflicting through or left-turn ("critical") lanes in an hour. Acceptable CLV values in the City vary based on the number of traffic signal phases and cycle lengths at a particular intersection and time of day. The maximum CLV for intersections along Rockville Pike range from 1400 (Congressional Lane in the morning) to 1700 (Richard Montgomery Drive in the late afternoon/evening).[22]

A proposed development's intersection impact (or net new peak hour trip generation) is then calculated to determine whether the net new trips of the development will make a given intersection's congestion exceed certain intersection impact thresholds.[23] If so, then Intersection Mitigation must be provided as discussed further below.

i. Calculation of Net New Peak Hour Trip Generation

The CTR calculation for a development's intersection impact or "net new peak hour trip generation", allows for some trips to be discounted from the number of trips the project is required to mitigate under the APFS. For instance, for certain commercial retail developments, such as a bank, it is assumed that a portion of the trips to the site are those that would have otherwise traveled on a street adjacent to the development even if the development had not been constructed. Therefore, these trips are not counted for purposes of the Intersection Capacity Analysis.

Developments can also earn trip reductions based on the type of proposed development and its proximity to public transportation. Mixed-use developments are afforded a 10 percent reduction in their impacts if located in a transit-oriented area (TOA)[24] or a 5 percent reduction if located in a non-TOA. Developments occurring within TOAs are eligible for a 15 percent reduction in trips. Additionally, projects can earn credits to further decrease their required trip mitigation based upon the implementation of multi-modal transportation options. Examples of such trip reduction strategies include employers providing subsidies to employees for using mass transportation or bicycling to work, charging for parking, and promoting teleworking or

[22] The reader will note that Committee's recommendations outlined in Section 3 below does not address the issue of whether the various CLVs applied to City intersections should be changed/adjusted in any way. CLVs were discussed, but only in relation to their effects on other traffic issues. The Committee's discussion did not include offering a recommendation to change the CLVs.

[23] These are outlined in Table 4 of the CTR.

[24] The City has established Transit-Oriented Areas (TOAs) around the fixed-guideway transit stations that serve the City (i.e. Shady Grove Metro Station, Rockville Metro Station, and Twinbrook Metro Station). The TOAs include streets/sidewalks in the City that are within 7/10ths of a mile walking distance from one of the three Metro stations.

flextime.[25] The maximum amount of trip reductions/credits/mitigation relief allowed by the CTR for purposes of the Intersection Capacity Analysis is 30 percent for TOAs and 20 percent for non-TOAs.

ii. Intersection Mitigation

Once a proposed development's net new peak hour trip generation is calculated, the impact of the trips on the various intersections within a project's Transportation Study Area is analyzed in order to determine to what extent, if any, intersection mitigation will need to be provided.

- For a development whose impact is less than a full 1 percent deterioration in an intersection's acceptable congestion threshold, or Level of Service (LOS), no intersection mitigation is required.
- For a development whose impact is between 1 to 6 percent deterioration in an intersection's acceptable LOS, the project must provide intersection improvements that will mitigate at least half of its impact.
- If a development's impact is greater than 6 percent deterioration in the LOS, then the project must provide intersection improvements that will mitigate the project's impacts to 3 percent or less.

If a physical intersection improvement cannot be identified or cannot be achieved that would mitigate a development's impacts within the parameters indicated above, the development project does not pass the City's transportation facilities test and is denied. A number of intersections within the City are at, or near, failing conditions (i.e. exceed their acceptable LOS). A few examples include the intersections of East Jefferson/Maryland Avenue, Rockville Pike/MD 28, Rockville Pike/Wootton Parkway, Rockville Pike/Congressional Lane, Rockville Pike/Halpine Road, and Rockville Pike/Rollins Avenue. As a result, new development in the vicinity of these intersections cannot proceed unless the project's impacts to adjacent intersections can be physically mitigated to the levels required by the CTR.

Intersection mitigation via expansion or improvement of physical infrastructure (i.e. the addition of a lane to a road) is often not a viable option in Rockville. Rockville Pike issues are the most notable, being a state-controlled highway with limited space for additional lanes. Two major intersections on Rockville Pike receive a failing grade during morning rush hour and five intersections fail during evening rush hour. The problem in these locations is the high volume of traffic moving across Rockville Pike (east-west direction), and the necessity to accommodate it with a longer signal cycle. This issue is not necessarily something that can be addressed by a lane addition or other physical improvement at the intersection. Rather, a much larger infrastructure or modal transport change is required that would reduce the cross-traffic volume through the area. Some of this cross-traffic volume is due to cars entering Rockville Pike, or traveling across Rockville Pike to reach their final destinations (e.g. Veirs Mill Road, Edmonston Drive). In other cases, such as Halpine Road – where eastbound traffic

[25] See pages 47-48 of Transportation Demand Management Plan.

terminates at the Twinbrook metro station – the traffic could be due to cars traveling to park or leave people at the Metro station.

B. Additional Transportation Network Mitigation Required by CTR

Assuming passage of the above Intersection Capacity Analysis portion of the CTR, certain developments are required to provide additional mitigation in the form of fees, contributions, or trip reduction plans that are geared toward improving the broader transportation network.

Transportation Improvement Fee: A Transportation Improvement Fee is collected from developments generating 30 or more new peak hour trips. The fee is collected by the City and used to implement multimodal improvements such as bus shelters, bike racks, etc. throughout the City of Rockville.

Transportation Improvement Contribution: For any development generating 350 or more new peak hour trips, the CTR requires a Transportation Improvement Contribution, which can consist of an actual physical improvement funded and constructed by the applicant, or a monetary contribution to the City proportional to the development's impact.

Trip Reduction Plan: For office-use only, development generating 125 or more new peak hour trips, the CTR requires implementation of a Trip Reduction Plan (TRP). According to the CTR, the goal of the TRP is to "reduce single-occupancy vehicle usage and increase biking, walking, ridesharing, use of transit, and travel outside of peak hours."

2. Montgomery County's Approach to Transportation Facilities Planning

Montgomery County also employs a similar type of transportation facility review for new development that looks at local traffic congestion at nearby intersections, known as the Local Area Transportation Review (LATR).

The LATR requires proposed new development to mitigate trips generated from the site that cause a nearby intersection to exceed acceptable congestion levels. Unlike the CTR, however, the LATR allows a development project to mitigate up to 100 percent of its intersection impacts by implementing alternative improvements/strategies designed to reduce reliance on auto-related capacity by removing existing trips off the street. Construction of sidewalks, bikeways, and transit stations, provision of shuttle service/buses and Metro subsidies, enforcement of carpooling plans, and reductions in the number of on-site parking spaces provided, etc. are some of the mitigation options available for a developer to influence the use of alternative modes of transportation by not only individuals that reside, work, or shop at the development itself, but also by others within surrounding developments/communities.

The LATR's approach to the issue of CLV is also somewhat different. The County sets

maximum CLV values for intersections that vary by larger policy areas, as opposed to intersection by intersection. The variation is based on the idea that less traffic congestion should be permitted in areas with lower transit service and usage, and more traffic congestion should be allowed in areas with greater transit service and usage. For the rural policy areas of the County, anything worse than 1400 CLV is unacceptable. For policy areas with the greatest level of transit service available, such as policy areas that include Metro stations, the value is 1800 CLV. Other policy areas fall somewhere between 1400 and 1800, depending on the area's level of transit service and usage.

In addition to the LATR's analysis of local traffic congestion at specific intersections, the County employs a broader set of techniques to help reduce the impact of development on traffic congestion. The most significant of these techniques are the phasing of development with defined milestones marking transportation infrastructure implementation and timed financing plans to support them. Examples of some broader techniques/strategies employed by the County were found in the approaches taken to transportation phasing for the White Flint and Great Seneca Science Corridor sector plans (see Appendix I).

A. White Flint Sector Plan

Integral to the White Flint Sector Plan is the phasing component that ties the amount of development allowed to move forward at a given point in time to the provision of transportation capacity. Total new development approved under the White Flint Sector Plan, which amounts to 9,800 dwelling units and 5.7 million square feet of non-residential development, is separated into three phases as follows:

Table 2. Phases of the White Flint Sector Plan approved by Montgomery County.

Phase One	**Phase Two**	**Phase Three**
3,000 dwelling units	3,000 dwelling units	3,800 dwelling units
2 million sq. ft. non-residential	2 million sq. ft. non-residential	1.69 million sq. ft. non-residential

Each phase includes specific transportation infrastructure milestones that must be completed before the next phase of development is allowed to proceed.

In addition, a financing mechanism in the form of a special taxing district was created so that the funds necessary to realize the specific list of transportation infrastructure is available when needed. Only existing residential owners within the newly formed district are exempt from the tax. All others, including new residential properties and existing/new commercial properties, will be assessed 10 cents per $100 of assessed property value, effective as of July 2011.

As a result of the "phasing approach" taken by the White Flint Sector Plan, i.e. phasing development with necessary transportation infrastructure to support said development,

projects in White Flint are exempt from having to separately comply with the transportation component of the County's APFO. The County's rationale for this exemption is that since the developments themselves are being required under the White Flint Sector Plan to fund and put in place the necessary transportation infrastructure capacity to support their developments, the underlying goal/requirement of the APFO has been met, which is to make sure that adequate facilities are in place to support any proposed development.

B. Great Seneca Science Corridor (GSSC) Master Plan

The GSSC Master Plan also employed a similar phasing approach to development, but did so in four stages as follows:

Table 3. Phases of the Great Seneca Science Corridor Master Plan.

Stage One	Stage Two	Stage Three	Stage Four
5,800 dwelling units: - 3,300 existing/approved units - 2,500 new units	2,000 dwelling units	1,200 dwelling units	No additional dwelling units
11.1 million sq. ft. non-residential: - 10.7 mil. sq. ft. existing/approved - 400,000 sq. ft. new	2.3 mil. sq. ft. non-residential	2.3 mil. sq. ft. non-residential	1.8 mil. sq. ft. non-residential

The GSSC Plan sets forth specific transportation capacity prerequisites, specifically tied to the completion of the Corridor Cities Transitway (CCT) project and achievement of what the County has termed "non-auto driver mode share,"[26] setting milestones for each that must be met prior to the start of Stages Two, Three and Four as follows:

Prerequisite for Start of Stage Two:

- Corridor Cities Transitway (CCT) construction funding in place
- Relocation of County service park funded
- Achievement of 18 percent non-auto driver mode share

Prerequisites for Start of Stage Three:

- CCT under construction with 50 percent of funds spent
- Other master planned transportation infrastructure programmed for completion within 6 years
- Achievement of 23 percent non-auto driver mode share

[26] "Non-auto driver mode share" is defined as the percentage of travelers within a given study area that commute/travel in a non-driver capacity, meaning they are passengers/bikers/walkers.

Prerequisites for Start of Stage Four:

- CCT operational
- Additional master planned transportation improvements programmed
- Achievement of 28 percent non-auto driver mode share

3. Recommendations

7) The City should engage in master planning for larger geographic areas within Rockville for transportation needs in order to address transportation issues in a more holistic manner, rather than in a piecemeal approach as development projects unfold. (Adopted 9-0-0)

8) In the future, should the Rockville Pike corridor be redeveloped, it should occur in phases; later phases of development should not be allowed to proceed until transportation milestones are met. Aspects of the White Flint and Great Seneca Science Center projects that focus on the requirement for development to occur in phases based on milestones, including but not limited to (a) completion of transportation infrastructure and (b) utilization of mass transit and non-automobile modes of transportation, are recommended as case studies for review by the Planning Commission. (Adopted 9-0-0)

9) The City should evaluate the maximum credit allowable for reduction of vehicle trips, which is currently set at 30 percent. For example, under certain circumstances, the City could consider allowing a trip reduction credit greater than 30 percent, provided that a trip reduction agreement with regular compliance monitoring is implemented. (Adopted 9-0-0)

10) The Comprehensive Transportation Review document should be amended to include a list of potential Transportation Demand Management strategies. (Adopted 9-0-0)

11) The City should periodically evaluate the efficacy of traffic mitigation options implemented by developers in the City, and update the APFS if deemed necessary. (Adopted 9-0-0)

12) The City should draw upon the data collected by the County and the Metropolitan Washington Council of Governments in regard to the efficacy of transportation mitigation options. (Adopted 9-0-0)

Fire and Emergency Service Standard

1. Summary of the Standard

The Committee's review found the Fire and Emergency Services Protection Standard adequately protects the availability of fire and emergency medical services (EMS) within the City, but also found the Standard could benefit from several clarifications and amendments.

The Standard's applicability to new development is limited; the Standard does not limit most new residential construction. The Standard only limits the construction of certain types of higher-risk development to areas of the City where a "full" fire and emergency services response is possible. The Standard defines "full response" to include the "availability of engines from at least 3 separate stations to arrive at the location within 10 minutes." Under the Standard "[t]he following higher-risk uses shall be allowed only where a full response from 3 stations within 10 minutes is possible: schools with the exception of relocatable classrooms;[27] hospitals; nursing homes; commercial buildings over 3 stories high with no sprinklers; places of assembly seating more than 500." The fire and emergency services standard notes the "public risk issues [for such properties] are much greater…and there is thus a logical basis to require…an optimal fire or EMS response[.]" Other types of new development are permitted in the City even where this "optimal fire or EMS response" is not possible.

The Fire and Emergency Service Protection Standard therefore does not restrict other types of new development, including lower risk residential construction and commercial buildings less than three stories high. The City building code requires all new residential development (both single- and multi-family dwellings) to have sprinklers. For this reason, the Standard provides that "being on the fringe of the full response areas shall not be a determining factor for adequacy of fire protection for new residential development activity." Consequently, the fire and EMS standard will not present a significant impediment to many forms of new development in the City. Rather, the fire and EMS standard will only affect higher-risk uses, which must lie within "full response."

The City uses response-time calculations provided by the Montgomery County Department of Fire and Rescue Services (MCFRS) to determine compliance with the "full response" requirement.[28] The predicted MCFRS response times to City locations are overlaid onto a map showing the areas of the City where a full response is possible (See Appendix K). Response time is based on the total time for MCFRS to receive a 911 call, alert and dispatch fire-rescue stations, and travel to the incident. MCFRS does not use actual response time data to create this map. Rather, to calculate response time, MCFRS uses the results of a study conducted in New York City that assumes emergency vehicles travel to a response at an average speed of 39 miles-per-hour. If the actual speed of emergency service vehicles in the City varies from this average, the

[27] "Amendment to exclude relocatable classrooms (aka portables) from the Fire and Emergency Service Protection standard was passed by Mayor and Council on February 28, 2011.
[28] See Appendix J.

response-time map the fire and EMS standard relies on might not accurately reflect the true extent of fire coverage in the City. However, current response time statistics provided by MCFRS demonstrate that fire and rescue units typically arrive to a call within MCFRS' response-time goals.[29] This suggests that the model-based response time predictions are reasonable indicators of fire and EMS travel times in the City.

2. Compliance with the Current Standard

Under the MCFRS data and map currently used, approximately 90 percent of the City is within a full-response zone. However, this map assumes that a long-planned Montgomery County fire station, Travilah Station 32, is already in place, which is not currently the case. Station 32 is now fully funded and construction is expected to begin by the end of 2011. At its earliest possible readiness date, Station 32 will come on line in fiscal year 2013. Thus, to the extent the response-time map incorporated in the City's APFS relies on the existence of Station 32, it overestimates the percentage of the City currently within the full-response zone. Only approximately 75 percent of the City is within the full response zone if the planned, but currently un-built, Station 32 is omitted from the calculations.[30]

The County also has identified plans to construct another fire station at the intersection of Shady Grove Road and MD 355. Although this station is not currently funded in the Shady Grove Master Plan, if constructed, this station will further add to the fire and emergency services capacity in the City.[31]

3. Issues Raised During the Committee's Work

While investigating the current Fire and Emergency Service Protection Standard, several issues and considerations came to light.

First, after completing its review of the Standard and the information and testimony provided during the review process, the Committee noted that the Standard is somewhat confusing and does not clearly address both fire and emergency services protection.

Second, the current Standard focuses on "engines" and responses to fires, and does not address that the overwhelming majority of fire and EMS calls are for medical emergencies as opposed to fires based on the information provided to the Committee by MCFRS. In fiscal year 2010, about 80 percent of incidents in Rockville that MCFRS responded to were medical emergencies. This was also true for incidents at schools located within the City, with eight of the past ten incidents[32] being classified as emergency medical incidents rather than fire incidents. Additionally, a high percentage

[29] See Appendix J.
[30] See Appendix L.
[31] See February 24, 2011 Memorandum to the APFO Advisory Committee from David Levy, Manisha Tewari, and Deane Mellander regarding Current and Future Development Patterns and the APFO.
[32] As of June 9, 2011.

of responses involve "rescue" calls (e.g. accidents on I-270 and similar situations). The current Standard does not address the combination of resources required to respond to the variety of call types that actually occur in Rockville, as a “full response” under the Standard is response by three fire engines. Given the high prevalence of medical and rescue emergencies in the City, response by three engines may not be appropriate for the vast majority of incidences MCFRS responds to in Rockville. The Committee believes that Standard should be revised to recognize this demand for EMS and rescue services.

Third, the Standard defines “full response” to include the “availability of engines from at least 3 separate stations to arrive at the location within 10 minutes.” Based on the Committee’s review, it appears that this requirement was based in part on the assumption that Montgomery County would have already completed the development of the planned Travilah Station 32. (See Appendix L to view the areas of Rockville serviced by fewer than three stations when Station 32 is excluded from the analysis.) Although the “three stations” standard appears to make logical sense based on the existing fire stations within the City of Rockville and the planned build out of Travilah Station 32, it was unclear what additional factors were used to determine the original standard. While the Committee has not identified a specific issue that would lead it to recommend a change to the “three stations” standard, the Committee would suggest a review of this portion of the Standard to confirm its appropriateness.

Fourth, the Standard requires that an entire property fall within the full response zone. Some properties may meet the Standard’s response time requirement at one building entrance but fail at another entrance. One example of this situation is the portable classrooms at College Gardens Elementary School. The Committee understands that the addition of portables at the elementary school passed the Fire and Emergency Service Protection Standard if measured at the front door of the school but failed if measured at the rear door, due to the school being situated at the boundary line for response by two versus three stations. In response to a dispute with Montgomery County Public Schools regarding this issue, the Mayor and Council passed an amendment to the APFS on February 28, 2011 to exclude portable classrooms from the requirements of the Fire and Emergency Service Protection Standard. In lieu of carving out this specific exception, the Committee believes it would have been a better approach to amend the APFS to state that a project satisfies the Standard if any portion of a property falls within the full response zone.

4. Recommendations

13) The standard would benefit from a complete rewrite to provide greater clarity. (Adopted 9-0-0)

14) The standard should be revised to recognize that the primary demand is for emergency and rescue services rather than for fire service, as defined by “engine” response. In this context, the term “full response” in this section should be redefined accordingly. (Adopted 9-0-0)

15) The Planning Commission should evaluate if the current standard for level of service (response by three stations) is appropriate. (Adopted 9-0-0)

16) For the purposes of applying this standard, response time to a building should be considered the same for all parts of the building. (Adopted 9-0-0)

Water and Sewer Standards

The City adopted and issued a Water Resources Element Comprehensive Master Plan[33] on December 13, 2010. The document details the provision of adequate drinking and potable water, wastewater disposal in Rockville's sewer system, and its stormwater management program through the year 2040. While stormwater run-off affects the quality of water and aquatic habitats in streams and rivers in and around Rockville, discussion of this subject is beyond the purview of the APFO. Stormwater management regulations and requirements are addressed in other parts of the Rockville code, primarily in the City's Water Quality Protection Ordinance. Those ordinances are heavily influenced by State law requirements.

1. Water Supply

The APFO requires denial of any development that would cause the City to exceed its available water supply less a reasonable reserve for responding to fires. Rockville is part of a regional partnership that ensures adequate potable water capacity. As referenced in the Water Resources Element of the City's Comprehensive Master Plan, the City owns and operates its own water treatment plant and supplies approximately 74 percent of its total residents with drinking water. The Washington Suburban Sanitary Commission (WSSC) provides water to the remaining residents through its distribution system and maintenance of water lines in the City.

The City has an appropriation permit issued by the Maryland Department of the Environment to withdraw an average of 7.1 million gallons of Potomac River water per day and may not exceed 12.1 million gallons per day. Per the Water Resources Element, the actual daily average withdrawal for 2009 was 4.91 million gallons, and the current summertime maximum withdrawal is 8 million gallons per day. Accordingly, the City's water needs are more than met at the present time and into the foreseeable future. The City projects a total need of 6.55 million gallons per day by 2040, well below the allowable average threshold level. In short, while the drinking water needs of Rockville are expected to grow over the coming decades, the City is projected to be able to meet these demands until at least the year 2040.[34]

2. Sewer Service

Similar to the water standard, the APFO requires denial of any development project that would cause the City to exceed the sewage transmission capacity in any part of the City's sewer system or the treatment capacity available to the City at the Blue Plains Treatment Plant in Washington, D.C.

Per the Water Resources Element document, all sewage in the City is collected in 148 miles of City-owned and maintained sewers, and it is transported to interceptor sewers

[33] Available at http://www.rockvillemd.gov/masterplan/elements/WaterResources121310.pdf.
[34] See "Water Resources Element, Comprehensive Master Plan," approved and adopted December 13, 2010 at pages 5-6, 18, and 31.

owned and maintained by WSSC. Similar to its provision of potable water, Rockville provides wastewater service for approximately 74 percent of its residents, while the remaining residents are serviced by WSSC. WSSC does not anticipate any concerns with continuing to service its Rockville customers for the next 20-30 years.[35]

The City is working to address issues with its aging wastewater collection system. The current sewer demand for Rockville is 3.93 million gallons per day. The City's sewer system is experiencing approximately 2.18 gallons per day of infiltration and inflows due to breaks and cracks in the system. While the City is actively taking steps to correct these issues, it must account for this inflow in its calculations of sewer capacity at Blue Plains. The City projects that by 2030, it will require an additional 0.78 million gallons per day above its current demand. By 2040, the total demand should grow to 7.42 million gallons per day. This volume of wastewater is well within the City's existing allotment of Blue Plains regional treatment capacity, which is 9.31 million gallons per day. In fact, the City projects that it will not meet its total allotment at Blue Plains until well after the year 2040.[36]

3. Recommendations

17) The current water standard is adequately serving the City. The Committee has no recommended changes. (Adopted 9-0-0)

18) The current sewer standard is adequately serving the City. The Committee recommends correcting the wording of the sewer service standard (APFS III.E (ii)) to state "sewer service" not "water supply." (Adopted 9-0-0)

[35] See Water Resources Element at pages 7 and 39-41.
[36] See Water Resources Element at page 42.

Waivers to the APFO

The APFO allows certain types of development to receive a waiver from all or part of the APFS if the Approving Authority "finds that there will be minimal adverse impact resulting from such a waiver."[37]

The APFO provides waivers for houses of worship, minor subdivisions (up to three residential lots), accessory apartments,[38] personal living quarters,[39] wireless communications facilities, and publicly-owned or publicly operated uses. Nursing homes and housing for the elderly and physically handicapped can receive a waiver, but not from the Fire and Emergency Service Protection Standard. The addition(s) of portable classrooms to existing schools are excluded from the APFO requirements.

A waiver of the requirement to comply with the APFS may be granted only with a super-majority vote of an Approving Authority. A super-majority vote currently consists of three votes for the Board of Appeals, five votes for the Planning Commission, and four votes for the Mayor and Council. The Chief of Planning may not grant a waiver.[40]

As currently written, the APFS provision on waivers does not spell out any criteria to guide the granting of a waiver by an Approving Authority, beyond the requirement for "minimal adverse impact" to public facilities. The Committee heard from representatives of commercial stakeholders that greater clarity on this provision, especially criteria for the granting of a waiver, would be helpful to applicants pursuing development projects in the City.

The Committee also identified ambiguity in the APFS language on waivers. In its current form, the APFS states that "[t]he following uses or classes of uses are eligible for a waiver from the APFO requirements." It is not clear if the list of eligible uses is intended to be limited to only the identified uses, or since this is not stated, if other uses could seek a waiver.

Recommendations

19) The APFS provision on waivers should be clarified in regards to whether or not the list of projects eligible for a waiver from the APFO is inclusive of all eligible project types. (Adopted 9-0-0)

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[37] See APFS Section II.C. Waiver Provisions. Note: a waiver does not exclude any project from the final adequacy check for water and sewer service, if needed for the project.

[38] An accessory apartment is a second dwelling unit that is part of and subordinate to an existing single unit detached dwelling and contains cooking, eating, sanitation, and sleeping facilities. (City of Rockville Zoning Ordinance, 25.03.02)

[39] A personal living quarter is a permanent residential unit with incomplete kitchen or bathroom facilities, occupied by no more than two persons in each such unit, and located within a larger structure that contains at least five such units, plus a residential unit for an on-site manager. (City of Rockville Zoning Ordinance, 25.03.02)

[40] See Section 25.20.01.b of the City's Zoning Ordinance.

20) The City should develop non-binding criteria to help guide the decision-making process for considering whether to grant a waiver. The Approving Authority should issue a finding with sufficient justification for each waiver granted or denied. (Adopted 8-1-0)

Amendments to the APFS

Two amendments to the APFS were considered and approved by Mayor and Council while the Committee was actively meeting (January-August 2011).

On February 28, 2011, Mayor and Council adopted a resolution that amended the APFS to exempt the addition of portable classrooms from the requirements of the APFO.[41]

On June 6, 2011, Mayor and Council adopted a resolution that amended the APFS to allow development applications filed in conjunction with a petition for property to be annexed into the City to be subject to the County's school test, rather than the City's school test.[42] This new provision is only applicable to development applications that would be serviced by schools located outside of the City and whose student body is comprised of less than 10 percent Rockville students.

In both instances, the changes to the APFS required a simple majority vote by Mayor and Council to be approved. Both sets of changes received the required three votes in support. Since these were amendments to the APFS, not waivers, a super-majority was not required. Additionally, a public hearing process was not required prior to a vote on either amendment.

After much discussion on the topic, the Committee felt strongly that more public input should be solicited prior to a vote by Mayor and Council to amend the APFS. Several options were debated. Some Committee members favored a requirement for a super-majority of the Mayor and Council to vote in favor of an amendment to the APFS in order for said amendment to be adopted. Other Committee members felt this was too stringent. Ultimately, the Committee reached consensus that a new requirement for a public hearing process prior to amending the APFS would suffice.

Recommendation

21) The APFO should be amended to require a public hearing process before any amendment to the APFS can be voted upon for adoption by Mayor and Council. (Adopted 9-0-0)

[41] See http://rockmail.rockvillemd.gov/clerk/egenda.nsf/d5c6a20307650f4a852572f9004d38b8/dfe2ef03d87bae508525783800571747!OpenDocument for the text of the resolution and supporting documents.
[42] See http://rockmail.rockvillemd.gov/clerk/egenda.nsf/d5c6a20307650f4a852572f9004d38b8/3a4bc611009c386d8525789a0056ce44!OpenDocument for the text of the resolution and supporting documents.

Citizen Opinions of Growth

As part of its deliberations, the Committee explored how the City gauges the sentiment of Rockville residents regarding the pace of development in the City, protections offered by the APFO and APFS, and other related issues.

The City's Citizen's Survey[43] is the only survey that encompasses the entire city. It is conducted every two years, most recently in November 2010. Two thousand survey forms were mailed to Rockville residents, with 761 returned. In addition to other items, the survey includes "key drivers" that are intended to indicate where resources should be allocated – snow and ice removal, maintenance of the Town Center, water and sewer, recreation, etc.

The questions posed on the survey change over time, depending on the priorities of the City. In 2010, a new question was added regarding the rate of growth in Rockville. Fifty-five percent of residents responding to the question thought that population growth in the City was "somewhat too fast" or "too fast;" only three percent thought that it was "much too slow" or "too slow." In terms of new development, a majority of respondents (62 percent) responded that retail growth was proceeding at the right pace, whereas slightly less than half of respondents (46 percent) indicated that the speed of growth in housing was the "right amount."

With the exception of the new question about rate of growth, the Citizen Survey does not ask residents their opinions about new development or the APFO and APFS. A barrier to implementation of additional questions is the limited length of the survey. Core questions are required in order to maintain the on-going statistics about quality of life, which leaves little space for "specific issue" questions each time the survey is issued. It appears that there is some flexibility to include tailored questions. For example, in 2008, there was a "specific issue" question regarding arts, culture, and entertainment.

Despite these limitations, the Committee discussed the possibility of the City conducting an APFO-specific survey in order to obtain pertinent citizen data about quality of life, the pace of development, and other relevant issues. Additionally, the Committee identified the value of surveying the Rockville business community regarding their perceptions of growth, as this segment of the community is not currently included in the City's Citizen Survey.

Recommendations

22) Future Rockville Citizen Surveys should gather more information to determine residents' opinions about the pace of development within the City and the balance of quality of life, availability of public facilities, and new development. (Adopted 9-0-0)

[43] See http://www.rockvillemd.gov/government/citymanager/rockville-citizen-survey-results-2010.pdf.

23) The City should periodically solicit residents' and commercial stakeholders' opinions on the impacts and outcomes of, and issues with, the APFO. (Adopted 9-0-0)

Reevaluation of the APFO

The Committee saw value in its mission to review the APFO and APFS and to make recommendations to the Planning Commission about the ordinance. For that reason, the Committee recommends future reevaluations of the law.

Recommendation

24) The Planning Commission should review the APFO at least every five years. (Adopted 9-0-0)